LAPTOP CHIP LEVEL TRAINING

FULL DAY MODULE AND DAY WISE COURSE CONTENT

LAPTOP CHIP LEVEL TRAINING FULL DAY BATCH DETAIL

MODULE – 1 BASIC LAPTOP HARDWARE	(FRI – SAT)	2 DAYS
MODULE – 2 DESKTOP M/B	(MON-TUE)	2 DAYS
MODULE – 3 ADV. LAPTOP CHIP LEVEL	(WED – THU – FRI - SAT)	4 DAYS
MODULE – 4 ENGINEER LEVEL ADVANCE	(MON – TUE - WED – THU- FRI)	5 DAYS

MODULE :-1 BASIC LAPTOP SERVICE TRAINING (FOR FRESHER)

BASIC KNOWLEDGE OF LAPTOP PARTS AND ASSEMBLE D ASSEMBLE & ELECTRONICS IN DEPTH 2 days prior to module 2

Note :- (IF CANDIDATE HAS A KNOWLEDGE OF BASIC LAPTOP AND ELECTRONICS HE CAN DIRECTLY GO TO MODULE – 2)

10:30AM -11:00AM –Admission and Fee deposit Procedure Distribution of Books and toolkit
This course is offered with Hardware and Books .The list of Items Given is as follows
1. Electronics Short Notes Printed
2. Institute Printed Short Notes On Laptop
3. Tools For Opening Laptops

11:00 AM   Introduction About course detail and faculty with students

MODULE - 1   (1ST DAY)

- Computer Hardware & parts detail
- Difference between Laptop and Desktop
- ASSEMBLE D-ASSEMBLE   Demo with Parts Identification,
- ADAPTER:=   Work , Types , Working Concept , Volt, Ampere , PIN,Checking
- BATTERY: = Types, Pin out Detail, Basic Problem,
- TFT/LCD: = Type of LCD, TFT/LCD, size, pin, wide, CCFL
- INVERTER: = Usage of Concept of Inverter,
- Motherboard: = Types, Block Diagram, Identify
- CPU := Types, Block Diagram, Identify
- KEYBOARD = Types, Working Concept
- HARD DISK = Types, Diagrams, Basic Problems
- RAM = Types, Working Concept, Basic Problems
- CD/DVD = Types, common foult
- CHANGING & REPLACING ABOVE COMPONENTS
- ASSEMBLE / De-ASSEMBLE DIFFERENT MODELS
- FORMAT & INSTALLATION OF LAPTOP
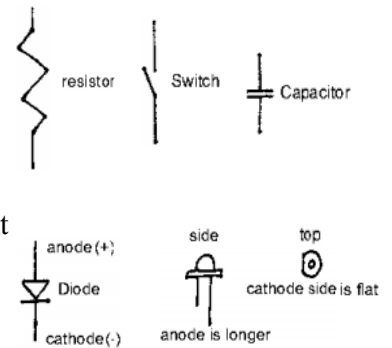
MODULE - 1   (2nd DAY)

BASIC ELECTRONICS

ANALOG ELECTRONICS = AC / DC Fundamentals.
Types of Circuit, Types of Material, Current, voltage, watt, ampere, Resistor, capacitor, diode transistor, MOSFET, Fuse, Induction, Testing Procedure and used of components, Soldering and removing of different components, Instrument used for Repairing

DIGITAL ELECTRONICS = Types of Number system, binary , octal, HExa,
Conversion of Number Systems Types of Gate, AND OR   NOT NOR etc,
REMOVING & FIXING OF COMPONETS & CHIPS WITH MICRO IRON AND BGA MACHINE

MODULE: - 2 DESKTOP MOTHERBOARD REPAIRING TRAINING

(STUDENT SHOULD HAVE KNOWLEDGE OF MODULE 1 & BASIC ELECTRONICS)

5 DAY COURSE TIME PROGRAMME

10:30AM -11:00AM –Admission and Fee deposit Procedure Distribution of Books and toolkit
This course is offered with Hardware and Books. The list of Items Given is as follows
1 Motherboard Printed Notes
2 Institute Printed Short Notes On Laptop
3 DVD Having Basic Notes, schematic diagram of common laptops, Laptop Service Manuals, Datasheet, Tips Etc.
4 Tools For Laptops

MODULE – 2 (1ST DAY)

11:00 AM –11:30AM – Introduction About course detail and faculty with students
INTRODUCTION REVISION OF MODULE 1 TOPICS
Basic Electronics, Digital Electronic Revision (Fast)
Simply identify components sort open close and explaining mosfet

NOTE :- (before going to laptop motherboards repairing candidate should have knowledge of desktop motherboards first then only he can understand laptop motherboard easily)

MODULE – 2 (2nd DAY)

COMPUTER MOTHERBOARD REPAIRING TRAINING

INTRODUCTION TO DESKTOP MOTHERBOARD
• Motherboard Block Diagram, Function and Main Ics detail work Theory and Practicle idea
• Main Signals of Motherboard And How motherboards Work Different ic list
Motherboard Brands (INTEL, ASUS, GIGBYTE, MERCURY, MSI, ETC)
CPU Type (LGA775,DUALS730,QUODSLOT2, SLOT1, SLOT7ETC)
North Bridge (NFORCE, AMD, SIS, VT, I845, I875)
South Bridge (SIS, VT, INTEL, NVDIA)
I/O Controller IC (ITE, WINBOND, FDC, SMSC, SMART ETC)
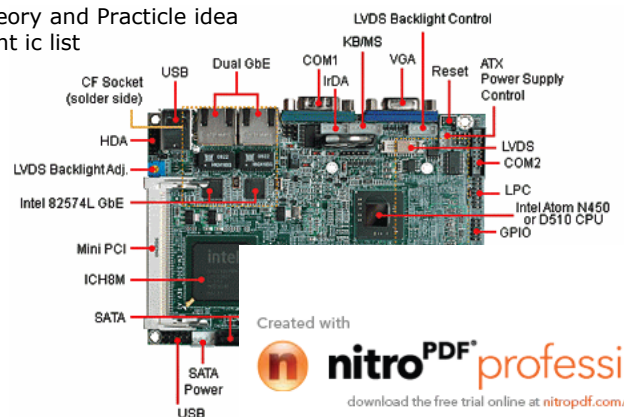VRM- Voltage Regulator Module IC (RTL, ADP, WINBOND, ETC)
VRM- Voltage Regulator Module Mosfet(-CHN017NF, HAP117,
B5TO3GH, F3711S,NIKOS ETC)
Clock Generator IC(WINBOND, ICS, ETC)
Serial Port IC(GD75232, ST75185, ETC)
LAN IC (3COM,REALTECH, MARVEL, ETC)
Audio IC (CRYSTAL, ALC, CREAFVE, ETC)

BIOS (SST, WINBOND, INTEL, ETC)
Mosfet (92039, 70120H, IS313W, 537, FR3704, ETC)
Socket (SMPS, IDI, CPU FAN, CMOS, CFLL, ECT)
Connectors (VGA, PS2, VSB, KEYBORD, SOUND, LPT, SERIAL, LAN, ECT)
SMD Component (RESISTOR CAPACITOR, TRANSISTOR, DIOD, FUSE, COIL, ETC)
Crystal (14.318 CLOCK , ETC)
• TRACING DIFFERENT CONNECTOR AND SOCKET WITH RELATED COMPONENT AND CHIP
• POWER SUPPLY BASIC CONCEPT
INTRODUCTION TO LAPTOP MOTHERBOARD
• DEFINE DIFFERENT LAPTOP PROBLEMS
• Main Signals of Motherboard And How motherboards Work with Different ic list .

TESTING DIFFERENT SIGNALS OF MOTHERBOARD WITH MULTIMETER AND CRO
COMMON FOULT LIST AND REPAIRING SOLUTION OF MOTHERBOARD

MODULE: - 3 ADV. LAPTOP CHIP LEVEL REPAIRING TRAINING

MODULE – 3 (3rd DAY)

LAPTOP REPAIRING TRAINING

ADAPTER :-

▪ Basic Working Idea, Block Diagram of Adapter, How to open Adapter, How to Check Input & Output, Fuse, Capacitor, Rectifier, Diode, Transformer, Output etc.., Testing Point of Adapter, Basic Troubleshooting of Adapter, Different Between orig & china Adapter, Repairing Concept of Adapter, Replacing components of adapter

BATTERY :-

▪ Basic Working Idea, Different Pin Detail & Testing, Block Diagram of Battery, Opening Battery, How to Check Cells, Charging Discharging Battery cells, Cell Connection Concept Series, parallel, AMP Volt Series & Parallel, EEPROM Chip, Chips Circuit Tracing, Charging Discharging Mosfet, Battery IC :- (BQ2040 BQ2060 BQ24700 BQ2470l BQ24702/BQ24703 M61040FP ,…..), Repairing Concept of Battery

LCD/ TFT/ LED / CCFL :-

▪ Basic Working Idea, Rows, Color, Pixel, RGB, Difference between LCD TFT LED , Block Diagram LCD TFT Pin out Detail, Testing LCD with Logic Test, Opening LCD Panels, Common Problems, Line on LCD Repairing Concepts, CCFL Testing, Changing of CCFL, Different Size of Lcd, Pin detail of LCD, Repairing Concept of LCD

INVERTER :-

▪ Used of Inverter, Block & Circuit Diagram of Inverter, DC in Signals, Pin Detail, VCC, Basic Problems, Contrast, on, Ground, AC Output, Testing Inverter with Direct Power Supply, MOSFET coil fuse Of Inverter, Troubleshooting of Inverter.

RAM :-

▪ Types of Ram, Pin Detail Of RAM, Ram EEPROM

KEYBOARD/ TOUCHPAD :-

▪ Working detail of keyboard and Touchpad, Row, Column concept of Keyboa[...] solution of Keyboard and touch pad.

MODULE – 3 (4th DAY)

LAPTOP MOTHERBOAR REPAIRING:-

- BLOCK DIAGRAM OF LAPTOP MOTHERBOARDS
- BASIC POWER SIGNALS DETAIL
- SOME IMPORTANT SIGNALS NAME AND IDENTIFY

TRACING DIFFERENT SECTION OF MOTHERBOARDS :-

CLOCK GENERATOR :- (ICS954310, ICS9LPRS365, RTS5158E, CY28346, ICS954206A, CS950502 CY28404C 153 ICS954218 ICS9248-39 ...)

CPU PROCESSOR :- (LGA775,DUALS730, QUODSLOT2, SLOT1, SLOT7ETC)

CPU TEMPERATURE CONTROL :- (MAX1617, MAX1020A, AD1030A, CM8500 MAX1989 DS1620)

NORTH BRIDGE Chips :- (NFORCE, AMD, SIS, VT, I845, I875)

GRAPHIC CHIPS :- (NVDIA-G-6150, NF-430-N-A3, G-6100, 7200-N-A3,7200-B-N-A3, 7400-G-N-A3, 7600-N-A2, G-7200-B-A3, ATI 7500-M7-CSP 16,)

SOUTH BRIDGE Chip :- (652BGA, SB700, 421BGA, 82801FBM MCP51NA2)

IO CHIP :- (KBC87541V, KB3920, KB3926, ENE3310, ITE8512E, WPC775, KB910, ENEKB926, PC97551, WPCN385, PC97338, PC87392,FDC7N869, FDC37N958, LPC47N227, LPC47N267 PC87591S/ PC 87591L / PC 97317IBW/PC 87393 VGJ PC87591E ETC)

ETHERNET CHIPS :- (88E8038, BCM5764, RTL8110, RTL8100, RTL8139, Intel DA82562, RC82540, 3COM, BCM440 LF8423, LF-H80P, H0019, ATPL-119)

SOUND AUDIO CHIP :- (ALC883, AC97CODEC, CX20561, ESS1921, STAC9704, AU8810 ,4299-JQ, TPA0202 , 8552TS, 8542TS, BA7786, AN12942)

PC CARD CHIP :- (PCI7411GHK, ICH9M, 609BGA, RSC832-1-GP, ICH6-M-14, R5C551, R5C552, R5C476, R54472)

PC CARD POWER SUPPLY CHIPS :- (TPS2205, TPS2206, TPS2216, TPS2211, PU2211, M2562A, M2563A, M2564A)

MAIN POWER CHIP 5V, 3V :- (MAX1999, ISL62392, TPS51125, ISL6237, MAX8734)

SECONDARY POWER SUPPLY CHIP 2.5, 1.5V :- (MAX1714A, TPS5116, MAX1845, MAX8734)

POWER SUPPLY CHIP :- (MAX1632, MAX1904, MAX1634,SB3052, SC1402, LTC1628 TMP48U ADP3160/ADP3167 ADP3168 APW7060 , ETC)

CPU POWER SUPPLY CHIPS :- (MAX1907A, MAX17080, ISL6265, MAX8770, FDS7088, MAX8760, ISL6265, ADP3166 ADP3170 ADP3421 AIC1567 CS5322 FAN5056 ITC1709 MAX1710, HIP6004)

CHARGE DISCHARGE CHIP :- (MAX8724, BQ24745, ISL88731A, MAX1772EEI, MAX8765, MAX745, TC490/591 AAI3680 ADP3806 DS2770 LTl505G MAXl645B MAX745 MB3878 AAT3680 ETC)

COM PORT CHIP :- (MAX3243, MAX213, ADM213, HIN213, SP3243, MC145583)

LCD BACK LIGHT CONTROL :- (MAXl522/MAXl523/MAXl524 OZ960 ,……..)

MEMORY POWER SUPPLY :- (TPS5116, PC4800, MAX8794 NCP5201 SC1486/SCl486A SC2616 TPS51020 ISL6520 CM8501, ISL6224 ISL6225 ,…)

OTHER COMMON CHIPSET :- (AAT3200 AAT4280 AMS1505 MIC2545MIC5205 ADP3168 AICl567 cM8562 CMl9738 CSS5322 DSl620,…..)

MODEM :- (20493-21, F1074.012, F0853.012, MU902, 8100CL, CX20548)

MOSFETS USED (4404, 4435, 4800, 4814, 4825, 4836, 4856, 4914, 5130, 6676, 6690, 6900)

MODULE – 3 (5th DAY)

TRACING DIFFERENT CONNECTORS AND SOCKET WITH PINOUT DETAIL

- Mini PCI Slot, LAN IEEE 1394, Audio Connection, Modem Acc, RTL, I/O Controller KBC, CD Rom Connection, HDD Connection, VGA Connection, Key Board Connection, Touch Pad Connection, Power Board DVD Panel Top

UNDERSTANDING LAPTOP POWER STAGES

POWER SUPPLY TO DIFFERENT CHIPS VCC CORE, 5VSUS, 3V, 1.5V, 1.8VSUS, 5V, 2.5V
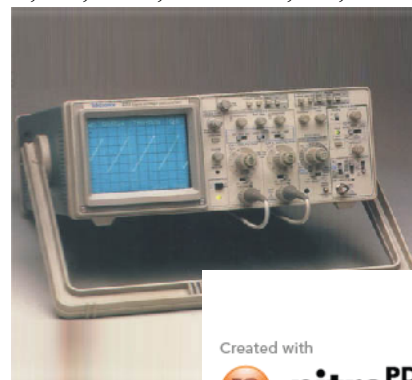
- 1ST Power stage primary 5v, 3v (Always On)
- 2nd power stage secondary 2.5v 1.5v 1.8v
- 3rd power stage VRM CPU CORE 1.3v
- Battery Charging/Discharging Section

CLOCK GENERATOR CIRCUITS
- Clock working Detail

BIOS CHIPS SECTION,
- Update Bios Method USB - EXE
- Bios working Detail

CRO OSCILOSCOPE
Training using cro, difference between multimeter and cro
Finding Fault using cro osciloscope
Testing Point to be Remember

USE OF DEBUG CARD, MINI PCI, LPT, PCI Post Error Code.
- Finding Fault Using Post Debug Card

TESTING MOTHERBOARD USING MULTIMETER/CRO

- CPU CORE VOLTAGE, VID SIGNALS , VRM SECTION, MOSFET OF VRM
- POWER GOOD, RESET, CLOCK, BIOS SIGNALS
- HOW TO READ DIFFERENT COMPONENT DATASHEET.
- BASIC CLEANING AND WASHING METHOD OF MOTHERBORD
- SMD COMPONENT PRACTICE REMOVING AND INSERTING DIFFERENT COMPONENTS

USING INFRARED BGA MACHINE
- Training Using Bga Soldering Station
- Removing Bga Chips And Rebolling It Using Reball Stencil

ICS REBOLLING, BGA BALL ARRANGEMENT, PRACTICE.
- Two methods 1 by applying balls with help of bga station
- 2nd applying liquid paste and heat with bga blower

BIOS PASSWORD RESETTING
- Ibm Dell Password Removing Steps.

SEARCHING DATA SHEETS OF DIFFERENT ICS.
COMMON PROBLEM OF DIFFERENT MOTHERBOARDS.
Common Faults Detail

INTERNET

- Purchasing Sites, Bios Search, Some Helpful Sites

PRACTICE WITH DEVICE

IC Removing Practice, Component Practice, BGA Infra red Machine, Removing chip to reball, Reballing Chip Using Different Method, BGA BALL Arrange, BGA Soldering Station, Using Liquid Paste, Solder Bath Tub, Removing Sockets, Connectors
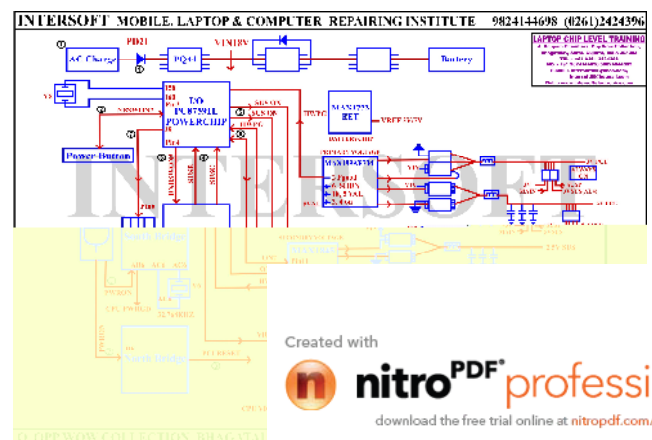
MODULE – 3 (6 Th DAY half day PRACTICE)

PRACTICE OF REMOVING COMPONENTS

TRACING DIFFERENT MOTHERBAORDS

AFTER COURSE

SOME TIPS COLLECTION OF MOTHERBOARD
ICS LIST USED FOR MOTHERBOARD
REPAIRING INSTRUMENT LIST
BIOS COLLECTION LIST
LAPTOP REPAIRING AND TIPS COLLECTION

LAPTOP SERVICE MANUALS

PARTICIPANTS WILL RECEIVE:

1. Certificate (to be given after the training)

2. Service Manuals of different Laptop

3. Schematic diagram of motherboards , Bios update files, Datasheet etc

4. Online support for 1 year

5. Handout (to be given before the training & Softcopy of other reference in PDF format)

6. Ics list and used of different Ics with models list

7. Market Detail, Shops Reference

(CANDIDATES SHOULD HAVE COMPUTER HARDWARE KNOWLEDGE)

2 participants minimum   Maximum 8 student -1st come 1st serve - Limited Seat only

-Reservation Fees 20 % advance through bank or PayPal (deposit through Bank).

THE REMAINING BALANCE WILL BE PAID ON THE FIRST DAY OF TRAINING UPON REGISTER (CASH BASIS ONLY)

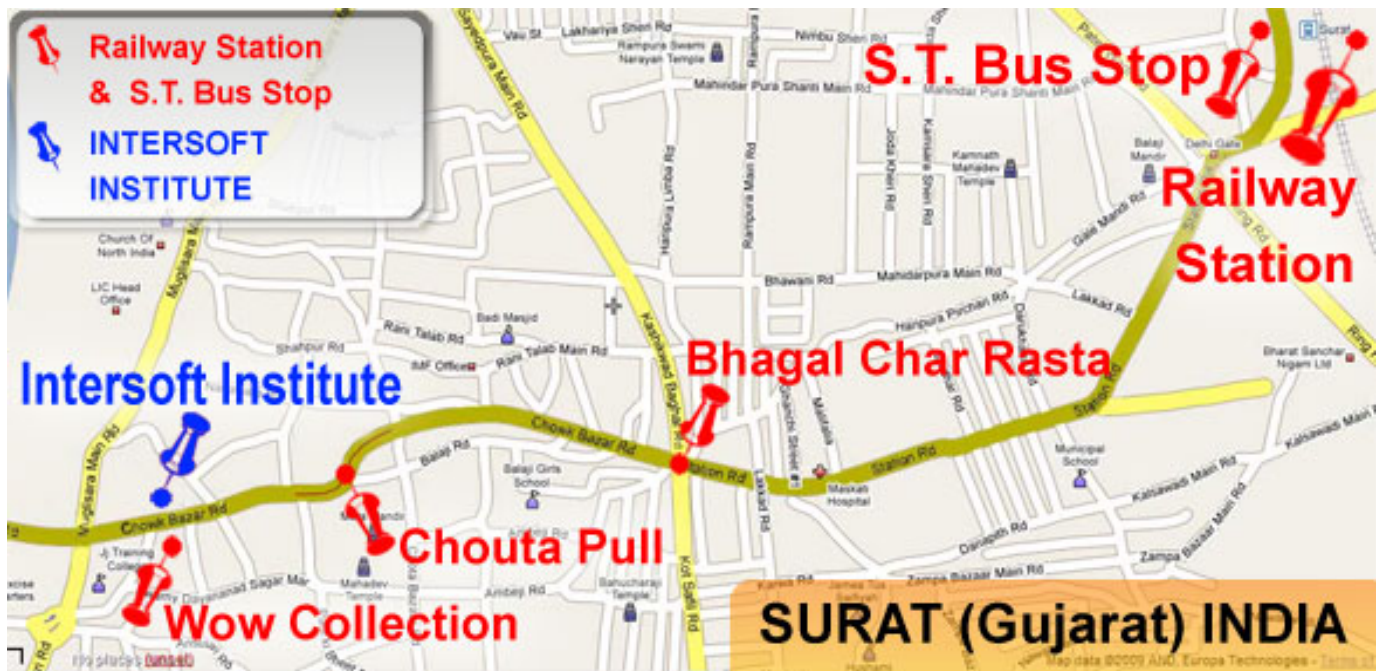# NOTE: *Inform & reserve seats before 1 week.*

ONLINE TRAINING OF LAPTOP REPAIRING

ONLINE LAPTOP REPAIRING VIDEOS, LAPTOP REPAIRING SUPPORT, LAPTOP REPAIRING MANUALS, LAPTOP CHIP DATASHEET, LAPTOP CHIPS USED LIST, COMPUTER MOTHERBOARD SCHEMATIC DIAGRAM, LAPTOP SCHEMATIC DIAGRAM, BASIC PROBLEMS AND SOLUTION, LAPTOP TRICKS & TIPS, LAPTOP REPAIRING INSTRUMENT, BGA SOLDERING STATION, BGA STATION, BGA STENCILS, BGA REWORK STATION, BGA REBOLLING SETS, BIOS PASSWORD REMOVING ETC   ALSO AVAILABLE

FOR INTERESTED PERSONS FOR FURTHER QUESTIONS/INQUIRIES

YOU CAN CONTACT US:

SURAT ADDRESS

INTERSOFT INSTITUTE
OUR NEW ADDRESS (Training Centre)
Bu 1, 2, 3, Pooja Arcade, Moti wala Perfume lane,
Bhagatalao main road, Nanvat, Surat, Gujarat, India 395003
(Approximately 3.5 km from to Station)

PHONE :- +91 261 2424396   MOBILE :- +91 9824144698/9824044699
WEB SITE :- http://intersoftelectronics.com
E.MAIL – intersoft05@hotmail.com, intersoft05@yahoo.com

LAPTOP TRAINING BATCHES SCHEDULES

Full day (6 DAYS!) 11:30 am to 6 Pm OR 6 (SUN)

Surat Batches

NEXT BATCH DATE :- 2 to 7 Sep 2013 (Mon. To Sat.)

NEXT BATCH DATE :- 23 to 28 Sep 2013 (Mon. To Sat.)

BANGALORE ADDRESS

C/O GREEN CHIP INSTITUTE
No 10, 9th main, 13th cross,
Ex service man colony
Near cantonment railway station
Vasant nagar, Bangalore 560052

PHONE :- 080 40978140   MOBILE :- 09686104829
WEB SITE :- http://intersoftelectronics.com
E.MAIL – greenchipinstitute@gmail.com

Bangalore Batches

NOTE: *ALL SCHEDULES CAN BE CHANGED*

ACCOMMODATION

SURAT LOCATION AND HOTEL INFORMATION

INTERSOFT INSTITUTE (Service Centre)
4, Anupam chambers, Opp. Wow collection,
Bhagatalao main road, Surat, Gujarat, India 395003
PHONE :- 0261 2424396, MOBILE :- +91 9824144698
(Approximately 3.5 km from to Station)

OUR NEW ADDRESS (Training Centre)
Bu 1, 2, 3, Pooja Arcade, Moti wala Perfume lane,
Bhagatalao main road, Nanvat, Surat, Gujarat, India 395003
PHONE :- 0261 2424396, MOBILE :- +91 9824144698
(Approximately 3.5 km from to Station)

Hotel Rack Rates in Surat					
SURAT (Gujarat) INDIA					
No.	**Name of Hotel**	**Star**	**Category**	**Single**	**Double**
1	**MOTI MAHAL GUEST HOUSE** (near institute)		SINGLE ROOM	300/-	-
			COMMEN BAD	120/-	-
			DOUBLE BAD	-	600/-
			WITH A/C + TV	-	825/-
Opp. GUJARATMITRA PRESS, CHOWK BAZAR, Surat. Tel : 0261-2463666 , 0261- 3219722					
2	**SAHARA GUEST HOUSE**		DOUBLE	200/-	300/-
S.S.V. BUILDING ,3rd FLOOR ,SUFI BAUG ,OPP.RAILWAY STATION, SURAT-395003 Tel : 0261- 2428269					
3	**HOTEL COMFERT**		ECONOMY A/C	600/-	-
			DOUBLE A/C	550/-	800/-
			A/C. DELUX BED	200/-	-
OPP.DELHI GATE POLICE CHOWKY, NR.BUS STAND & RAILWAY STATION, SURAT Tel : 0261-3209777 , 0261- 2490201					
4	**HOTEL DECENT**		Decent	700/-	800/-
			Super Deluxe	500/-	600/-
			Deluxe	450/-	550/-
			Economic	400	500/-
Abowath Complex No. 2, First Floor, Cinema Road, Opp. Krishna Cinema, Surat. Tel : 0261-2413871, 2452595					

BANGALORE LOCATION AND HOTEL INFORMATION

C/O GREEN CHIP INSTITUTE
No 10, 9th main , 13th cross,
Ex service man colony
Near cantonment railway station

Vasant nagar, Bangalore 560052
Mo :- +91 9686104829

Opp mahavir jain hospital road,
Opp taj tandori nites lane,
Infront of shivaji homely food,
Behind ayyappa temple

MAP LOCATION FROM CANTONMENT RAILWAY STATION

MAP LOCATION FROM BANGALORE JUNCTION RAILWAY STATION MAJESTIC

Hotel Rack Rates in Bangalore	
Golden inn	**Sahara guest house**
No 157 broadway road, shivajinagar, Bangalore . Phone 080-25577839 **Single bed 350/-** **Double bed 500/-**	No.121, chandi chowk road, shivaji nagar, Bangalore. phone080-22865893 **Single bed 350/-** **Double bed 500/-**

note :- hotel price subject to change

Our Demo Class

Please visit the following links to view our demos.
http://www.laptoponlinetraining.com/demo/introduction.html
http://www.laptoponlinetraining.com/demo/service-manual-demo.html
http://www.youtube.com/watch?v=om4b0BA-ejc
http://www.youtube.com/user/intersoft05?blend=1&ob=5
http://www.dailymotion.com/video/xjtal5_demo-of-intersoft-xvid_tech
http://www.dailymotion.com/video/xkjpnx_laptop-reparing-parts_tech

LAPTOP REPAIRING PARTS & INSTRUMENT

Laptop Repairing Instrument

BGA Rework Station, BGA Stencil set, LCD Tester, RAM Tester, Pickup Pen,
Solder Bolls, Solder Bath, Debug Card, Nano Bios

REGISTER TODAY AND START SELLING YOUR PRODUCT
FREE REGISTRATION FOR LIMITED PERIOD

For more detail visit or contact

http://WWW.LAPHUB.COM

Parts, Chips & Repairing Instrument

INTERSOFT ELECTRONICS   MOBILE +91 9824144396/9824144698
EMAIL:- intersoft05@hotmail.com

Laptop Schematic Diagram

LAPTOP MOTHERBOARD SCHEMATIC DIAGRAM & BOARD VIEW
(Acer Schematic Diagram, Asus Schematic Diagram, Compaq Schematic Diagram, Dell Schematic
Diagram, Samsung Schematic Diagram, Toshiba Schematic Diagram, Sony Schematic Diagram, IBM
Schematic Diagram, Lenovo Schematic Diagram, HP Schematic Diagram, ECS Schematic Diagram,
Compal Note, Quanta Notes)

**LAPTOP MOTHERBOARD POWER ON DETAIL & TIPS COLLECTION, COMMON FOULT AND REPAIRING
STEPS OF LAPTOP Motherboard**
(V2000 Power On Sequence, Dell d600 Power on Sequence, Power On Sequence of motherboard, Asus
Elsa - Power Sequence, HP cq40 Series Power on Detail, IBM t61 Power stage, power controller on the
IBM T40)

DESKTOP M/B SCHEMATIC DIAGRAM (MSI Schematic Diagram, GIGABYTE Schematic Diagram, INTEL
Schematic Diagram)

LAPTOP SERVICE MANUAL FOR DIFFERENT MODELS (ASSEMBLE OPENING & CLOSING OF LAPTOP)
(Acer Laptop Service Manuals, Apple Laptop Service Manuals, Compaq Laptop Service Manuals, Dell Laptop Service
Manuals, HP Omnibook Service Manuals, IBM Service Manuals, Sony Laptop Service Manuals, Toshiba Service
Manuals, E-Machines Service Manuals)

For More Detail :- **www.laptoptips.in**, **www.laptopschematic.net**

Mo :- 9824144692/9824144698